

## International trade

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# Statistical analysis of EU trade in energy products, with focus on trade with the Russian Federation

## Trade in energy products

The purpose of this study is to give a statistical overview of EU trade in energy products, with a particular focus on imports from Russia.

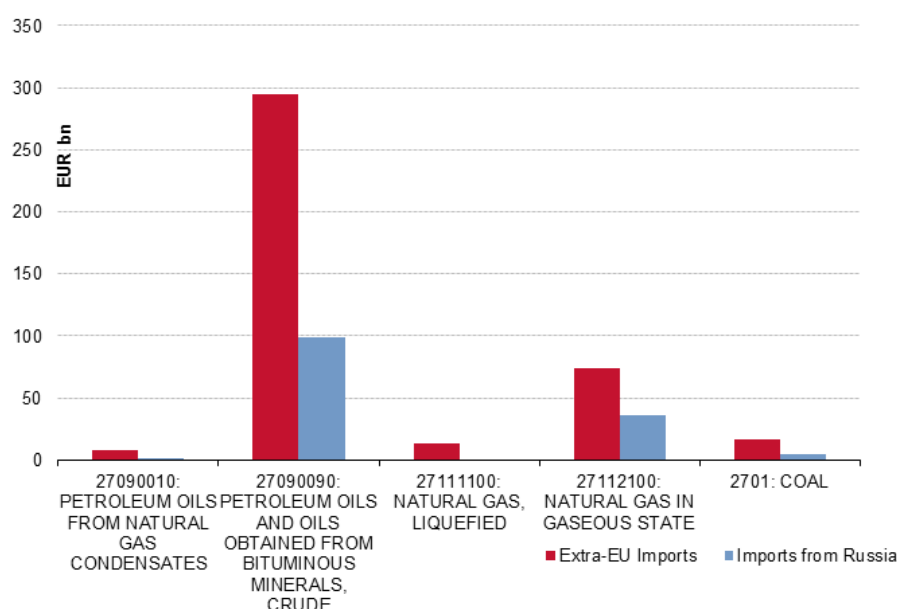


Figure 1: Extra-EU-28 imports in key energy products, 2013 - Source: Comext, Eurostat

## Main statistical findings

### Extra-EU Trade in energy products

**Total trade** EU statistics for trade with non-EU countries show that the EU is, with the exception of peat and coke, a net importer of energy products. Therefore, the statistical analysis hereafter focuses on imports of energy products into the EU. These energy products are of varying importance in EU trade with non-EU countries. The total trade value of energy products imported into the EU is dominated by crude oil (295 billion euro in 2013, 73 % of all energy imports) and natural gas in gaseous state (73.4 billion euro in 2013, 18 % of all energy imports).

ENERGY PRODUCTS	Value (billion EUR)		Net mass (million)	
	Extra-EU Imports	Extra-EU Exports	Extra-EU Imports	Extra-EU Exports
27090010: PETROLEUM OILS FROM NATURAL GAS CONDENSATES	7.3	0.0	10.8	0.0
27090090: PETROLEUM OILS AND OILS OBTAINED FROM BITUMINOUS MINERALS, CRUDE	295.0	5.6	487.0	9.1
27111100: NATURAL GAS, LIQUEFIED	13.6	1.7	33.2	3.2
27112100: NATURAL GAS IN GASEOUS STATE	73.4	1.3	167.7	2.4
2701: COAL	16.1	0.2	196.8	1.8
2702: LIGNITE	0.1	0.0	0.7	0.1
2703: PEAT	0.0	0.1	0.3	1.0
2704: COKE	0.4	0.5	2.2	2.5
<b>TOTAL</b>	<b>405.8</b>	<b>9.5</b>	<b>898.7</b>	<b>20.1</b>

Table 1: Extra-EU-28 imports and exports of energy products, 2013 - Source: Comext,Eurostat

**Trade with Russia – values and quantities** Tables 2 and 3 show that while EU imports of natural gas and petroleum oil in 2013 originated from several different countries, the largest exporter to the EU of these products was Russia. For natural gas the only other partners with a significant share of total [extra-EU](#) imports were Norway and Algeria. All other exporting countries contributed less than 10 % of EU total trade in these products, both in terms of value and volume. In contrast, for petroleum and crude oil Russia is less dominant an import partner in terms of value, with a larger number of competitors with smaller shares of exports to the EU.

Partner	VALUE (Share %)	NET MASS (Share %)
Russia	41%	39%
Norway	32%	34%
Algeria	14%	13%
Qatar	7%	7%
Libya	2%	2%
Nigeria	2%	2%

Table 2: Share in Extra-EU-28 imports of natural gas (liquefied, gaseous state), main trading partners, 2013 - Source: Comext,Eurostat

Partner	VALUE (Share %)	NET MASS (Share %)
Russia	33%	34%
Norway	11%	11%
Nigeria	9%	8%
Saudi Arabia	8%	8%
Kazakhstan	7%	6%
Libya	6%	6%
Algeria	5%	5%
Azerbaijan	5%	4%
Iraq	3%	4%
Angola	3%	3%
Mexico	2%	2%
Equatorial Guinea	1%	1%
Egypt	1%	1%
Kuwait	1%	1%

**Table 3: Share in Extra-EU-28 imports of petroleum oil, crude and NLG, main trading partners, 2013 - Source: Comext, Eurostat**

Table 4 shows that, in terms of value, imports from Russia in 2013 represented about 34 % of total imports of crude oil and about 49 % of total imports of natural gas in gaseous state. Russia accounted for 28 % of Extra-EU imports of coal. Russia had shares of less than 20% in EU total trade in other energy products, while liquefied gas was not imported from Russia at all.

ENERGY PRODUCTS	VALUE (billion EUR)				SHARE (%)	
	Extra-EU Imports	Extra-EU Exports	Imports from Russia	Exports to RU	Imports from Russia	Exports to Russia
27090010: PETROLEUM OILS FROM NATURAL GAS CONDENSATES	7.3	0.0	0.7	-	10%	-
27090090: PETROLEUM OILS AND OILS OBTAINED FROM BITUMINOUS MINERALS, CRUDE	295.0	5.6	99.0	0.0	34%	0%
27111100: NATURAL GAS, LIQUEFIED	13.6	1.7	-	-	-	-
27112100: NATURAL GAS IN GASEOUS STATE	73.4	1.3	35.7	-	49%	-
2701: COAL	16.1	0.2	4.6	0.0	28%	3%
2702: LIGNITE	0.1	0.0	0.0	-	11%	-
2703: PEAT	0.0	0.1	0.0	0.0	12%	1%
2704: COKE	0.4	0.5	0.1	0.0	17%	6%
TOTAL	405.8	9.5	140.0	0.0	35%	0%

**Table 4: Share of Russia in extra-EU-28 imports and exports of energy products, 2013, trade in value - Source: Comext, Eurostat**

Table 5 shows that in 2013, almost half of the imported quantities of natural gas in gaseous state came from Russia. Imports of crude oil and coal from Russia represented in volume terms 34 % and 31 % respectively of the total imports of these products from non-EU countries into the EU, imports of coke 22 %, while imports of

other traded products were of the order of 10 %. The unit values for Russian imports of the two most important products - crude oil and natural gas in gaseous state - were of a similar size to those for the EU's other trade partners in these products.

ENERGY PRODUCTS	NET MASS (Million tonnes)				SHARE (%)	
	Extra-EU Imports	Extra-EU Exports	Imports from RU	Exports to RU	Imports from RU	Exports to RU
27090010: PETROLEUM OILS FROM NATURAL GAS CONDENSATES	10.8	0.0	1.0	-	10%	-
27090090: PETROLEUM OILS AND OILS OBTAINED FROM BITUMINOUS MINERALS, CRUDE	487.0	9.1	166.1	-	34%	-
27111100: NATURAL GAS, LIQUEFIED	33.2	3.2	-	-	0%	-
27112100: NATURAL GAS IN GASEOUS STATE	166.1	2.4	77.7	-	46%	-
2701: COAL	196.8	1.8	60.8	0.1	31%	3%
2702: LIGNITE	0.7	0.1	0.1	-	11%	-
2703: PEAT	0.3	1.0	0.0	0.0	11%	1%
2704: COKE	2.2	2.5	0.5	0.1	22%	4%
<b>TOTAL</b>	<b>897.0</b>	<b>20.0</b>	<b>306.0</b>	<b>0.1</b>	<b>34%</b>	<b>1%</b>

**Table 5: Share of Russia in extra-EU-28 imports and exports of energy products, 2013, trade in net mass - Source: Comext,Eurostat**

We can gain another perspective on the above analysis by considering the view of the EU as the export partner for Russia. Here we use data from the [UN Comtrade](#) database. It must be remembered however that data is only available up to 2012.

Table 6 shows that the share of the EU as a partner in the total exports of Russia of petroleum oils (the most important import product for the EU) is 70.5 %. The share of the EU in the total estimated exports of Russia for natural gas in gaseous state is 70.9 %. Over one third of Russia's exports of coal and peat are also bound for the EU. The relative importance of the EU in Russian exports of energy products decreased over the period 2005-2012.

ENERGY PRODUCTS	2005	2006	2007	2008	2009	2010	2011	2012
270900: PETROLEUM OILS	80.5%	81.6%	76.8%	77.6%	76.7%	75.7%	72.8%	70.5%
27112100: NATURAL GAS IN GASEOUS STATE[1]	77.6%	82.3%	81.4%	80.9%	92.1%	77.0%	71.5%	70.9%
2701: COAL	50.1%	52.9%	49.4%	46.7%	54.1%	40.8%	40.8%	38.0%
2702: LIGNITE	53.6%	87.2%	81.6%	43.6%	31.5%	20.1%	16.3%	8.9%
2703: PEAT	46.1%	48.3%	48.7%	37.8%	53.3%	55.5%	47.0%	37.8%
2704: COKE	18.4%	20.3%	22.4%	39.9%	30.1%	24.7%	19.5%	12.3%
<b>TOTAL</b>	<b>78.4%</b>	<b>80.8%</b>	<b>76.9%</b>	<b>77.4%</b>	<b>79.7%</b>	<b>74.2%</b>	<b>70.9%</b>	<b>68.8%</b>

**Table 6: Share (%) of the EU-28 in Russian exports of energy products, 2005-2012, trade in value**  
(1) Estimated figure calculated from the corresponding imports of EU Member States (source: Comext) and world exports of Russia (source: Comtrade)- Source: Comext,Eurostat

**Mode of transport of goods** The analysis of trade by mode of transport (at EU frontiers) is provided in table 7.

ENERGY PRODUCTS	Unknown	Sea	Rail	Road	Fixed Mechanism (pipeline)	Inland Waterway
27090010: PETROLEUM OILS FROM NATURAL GAS CONDENSATES	20.0%	77.3%	1.0%	0.0%	1.0%	0.0%
27090090: PETROLEUM OILS AND OILS OBTAINED FROM BITUMINOUS MINERALS, CRUDE	4.0%	82.1%	0.1%	0.0%	14.0%	0.0%
27111100: NATURAL GAS, LIQUEFIED	0.0%	96.4%	0.0%	0.1%	2.0%	0.0%
27112100: NATURAL GAS IN GASEOUS STATE	0.0%	5.0%	0.0%	0.0%	94.9%	0.0%
2701: COAL	4.0%	88.7%	4.6%	0.1%	0.0%	1.9%
2702: LIGNITE	0.0%	82.7%	14.0%	2.6%	0.0%	0.0%
2703: PEAT	0.0%	41.8%	30.2%	27.6%	0.0%	0.0%
2704: COKE	0.0%	92.4%	3.0%	1.2%	0.0%	2.4%
TOTAL	3.0%	69.3%	0.2%	0.0%	26.8%	0.1%

**Table 7: Extra-EU-28 imports of energy products by mode of transport, 2013, trade in value - Source: Comext, Eurostat**

As expected, the sea mode dominates in the transport of all energy products with the exception of natural gas in gaseous state, which is transported by pipeline. Pipeline is also a significant mode for crude oil, especially for imports from Russia. Rail and road modes contribute to the transport of the other energy products. The high unknown figure in imports of Petroleum oils from natural gas condensates corresponds mainly to imports from Libya, Russia and Norway.

## Recent evolution of extra-EU trade in energy products

The total value of extra-EU imports of major energy products increased by 70 % while imports for the same goods from Russia increased by 80 % during the last nine years (2005-2013)<sup>1</sup>.

While the total value of imports increased, the corresponding net mass dropped slightly. This shows that the increase in trade value is mainly due to an increase in prices.

In 2013, the share of Chapter 27 of the [Combined Nomenclature](#) (mineral fuels, mineral oils) in the total value of Extra-EU imports was 30 % (24 % in 2005) and 65 % of total net mass (64 % in 2005). For exports, the respective shares are 7 % of the total value of Extra-EU exports (4 % in 2005) and 29 % of total net mass (28 % in 2005).

The relative evolution of unit values and net mass by main energy product is presented in Figure 2. To allow an easier comparison of the evolution of these two measures, the data are as shown as an index, where 2005 = 100. The graphs show that during this period, the net mass of natural gas and peat imported into the EU increased while for the rest of the products the total net mass decreased. For all main energy products, unit values increased.

<sup>1</sup>A significant decline (reversed in the following years) is observed during 2009 and 2010.

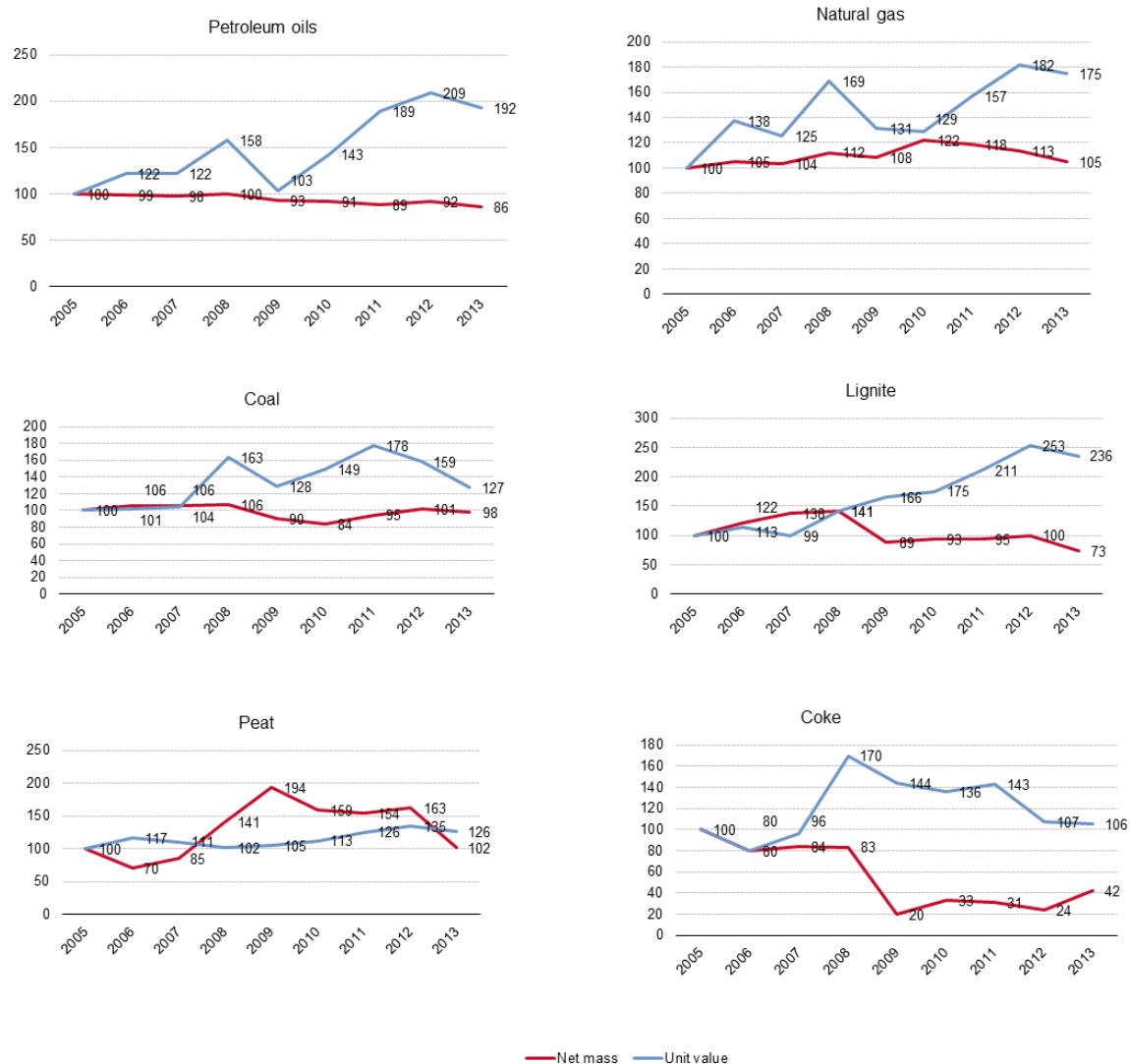


Figure 2: Evolution of unit values (value\_net mass) and net mass in Extra-EU-28 imports (2005=100) - Source: Comext, Eurostat

ENERGY PRODUCTS	2005	2006	2007	2008	2009	2010	2011	2012	2013
27090010: PETROLEUM OILS FROM NATURAL GAS CONDENSATES	4.6	6.5	5.5	6.3	4.5	4.9	6.5	6.8	7.3
27090090: PETROLEUM OILS AND OILS OBTAINED FROM BITUMINOUS MINERALS, CRUDE	172.8	207.5	206.5	273.1	165.7	226.2	291.1	333.2	295.0
27111100: NATURAL GAS, LIQUEFIED	6.5	10.5	9.0	13.0	11.9	15.9	21.2	17.6	13.6
27112100: NATURAL GAS IN GASEOUS STATE	40.7	57.9	52.3	76.4	55.4	58.3	66.9	79.6	73.4
2701: COAL	12.9	13.9	14.3	22.4	14.8	16.1	21.7	20.7	16.1
2702: LIGNITE	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
2703: PEAT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2704: COKE	0.9	0.6	0.7	1.3	0.3	0.4	0.4	0.2	0.4
TOTAL	238.5	296.9	279.4	392.6	240.8	321.9	386.6	440.7	405.8

Table 8: Extra-EU-28 imports of energy products, 2005-2013 (EUR billion) -Source: Comext,Eurostat

ENERGY PRODUCTS	2005	2006	2007	2008	2009	2010	2011	2012	2013
27090010: PETROLEUM OILS FROM NATURAL GAS CONDENSATES	0.6	0.7	0.4	0.4	0.4	0.4	0.9	0.6	0.7
27090090: PETROLEUM OILS AND OILS OBTAINED FROM BITUMINOUS MINERALS, CRUDE	55.4	66.1	67.2	86.9	55.0	78.0	99.4	109.9	99.0
27111100: NATURAL GAS, LIQUEFIED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27112100: NATURAL GAS IN GASEOUS STATE	19.0	28.1	25.4	36.6	26.0	27.9	32.9	34.4	35.7
2701: COAL	2.8	3.0	3.3	5.2	3.8	3.7	5.1	5.0	4.6
2702: LIGNITE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2703: PEAT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2704: COKE	0.1	0.1	0.1	0.4	0.0	0.1	0.1	0.1	0.1
TOTAL	77.9	98.0	96.5	129.4	85.3	110.2	138.4	149.9	140.0

Table 9: EU-28 imports of energy products from Russia, 2005-2013 (EUR billion - Source: Comext,Eurostat

## Trade in energy products by EU Member State

This chapter presents the values of the extra-EU and [intra-EU](#) trade in energy products of the different EU Member States. Only interval information is provided to avoid revealing confidential information.

Table 10 demonstrates for selected energy products the relative share of individual EU Member States in total extra-EU imports and in total imports from Russia, as well as the importance of imports from Russia at national level. The redistribution of imports among EU countries after import into the EU, as measured by intra-EU trade is not taken into account. The examined products are: Petroleum oils (CN codes: 27090010 + 27090090) and natural gas (CN codes: 27111100 + 27112100).



Member State	Share (%) of imports in total EU28 imports from RU of the product		Share (%) of imports in total extra-EU28 imports of the product		Share (%) of imports from RU in total national extra-EU28 imports of the product	
	Petroleum oils	Natural gas	Petroleum oils	Natural gas	Petroleum oils	Natural gas
Belgium	0-5%	0-5%	0-5%	5-10%	25-50%	0-25%
Bulgaria	0-5%	0-5%	0-5%	0-5%	75-100%	75-100%
Czech Republic	0-5%	5-10%	0-5%	0-5%	75-100%	75-100%
Denmark	0-5%	0-5%	0-5%	0-5%	0-25%	0-25%
Germany	10-20%	> 20%	10-20%	> 20%	25-50%	25-50%
Estonia	0-5%	0-5%	0-5%	0-5%	0-25%	75-100%
Ireland	0-5%	0-5%	0-5%	0-5%	0-25%	0-25%
Greece	0-5%	0-5%	0-5%	0-5%	25-50%	50-75%
Spain	0-5%	0-5%	10-20%	10-20%	0-25%	0-25%
France	0-5%	0-5%	10-20%	0-5%	0-25%	0-25%
Croatia	0-5%	0-5%	0-5%	0-5%	50-75%	0-25%
Italy	5-10%	> 20%	10-20%	10-20%	25-50%	25-50%
Cyprus	0-5%	0-5%	0-5%	0-5%	0-25%	0-25%
Latvia	0-5%	0-5%	0-5%	0-5%	0-25%	75-100%
Lithuania	5-10%	0-5%	0-5%	0-5%	75-100%	75-100%
Luxembourg	0-5%	0-5%	0-5%	0-5%	0-25%	0-25%
Hungary	0-5%	5-10%	0-5%	0-5%	75-100%	75-100%
Malta	0-5%	0-5%	0-5%	0-5%	0-25%	0-25%
Netherlands	10-20%	0-5%	10-20%	5-10%	25-50%	0-25%
Austria	0-5%	5-10%	0-5%	0-5%	0-25%	75-100%
Poland	10-20%	5-10%	0-5%	0-5%	75-100%	75-100%
Portugal	0-5%	0-5%	0-5%	0-5%	0-25%	0-25%
Romania	0-5%	0-5%	0-5%	0-5%	25-50%	75-100%
Slovenia	0-5%	0-5%	0-5%	0-5%	0-25%	75-100%
Slovakia	0-5%	5-10%	0-5%	0-5%	75-100%	75-100%
Finland	5-10%	0-5%	0-5%	0-5%	75-100%	75-100%
Sweden	0-5%	0-5%	0-5%	0-5%	25-50%	0-25%
United Kingdom	0-5%	0-5%	5-10%	5-10%	0-25%	0-25%
EU	100%	100%	100%	100%	33%	41%

**Table 10: Share of national imports of petroleum oils and natural gas, 2013, trade in value - Source: Comext,Eurostat**

All Member States imported petroleum oils and natural gas in 2013. For seven Member States (Bulgaria, Czech Republic, Finland, Hungary, Lithuania, Poland, Slovakia) more than 75 % of their petroleum oils imports came from Russia. Twelve countries (Austria, Bulgaria, Czech Republic, Estonia, Finland, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia), imported more than 75 % of total national imports of natural gas from Russia. In comparison, for 9 countries (Cyprus, Denmark, France, Ireland, Luxembourg, Malta, Portugal, Spain and the United Kingdom) the share of imports from Russia on national imports was less than 25% for both petroleum oils and natural gas.

Two of the five largest importing Member States (France, Spain), as measured by their share in total extra-EU imports of the product, relied on Russia for less than 25 % of their national imports of petroleum oils, and the others (Germany, Italy, Netherlands) for less than 50 %. Stronger dependencies on such imports were observed for smaller importing countries. For natural gas, Germany was the largest importer (>20 % of EU imports) from Russia followed by Italy and Spain (between 10 % and 20 %) and then by Belgium, the Netherlands and the United Kingdom (between 5 % and 10 %). All these countries do not belong to the group of Member States with more than 75 % dependence on imports from Russia. For Member States whose national imports represented less than 5 % of total EU imports, the dependence on imports from Russia is diverse.

Part of the petroleum oil and natural gas imported from Russia is also traded in the EU Internal Market. Table 11 gives some indicative figures for this effect, but no indication is given of the origin of the energy products that are subsequently part of intra-EU trade flows. The same considerations as for the previous table on the distribution of extra-EU trade apply to intra-EU trade. The figures show that the most important intra-EU trade flows are realised in Central and Western Europe. The 2013 share of intra-EU imports in the total of intra-EU and extra-EU imports is 12 % for petroleum oils and 38 % for natural gas.



Member State	Share (%) in total intra-EU imports of the product		Share (%) in total intra-EU exports of the product	
	Petroleum oils	Natural gas	Petroleum oils	Natural gas
Belgium	> 20%	10-20%	0-5%	10-20%
Bulgaria	0-5%	0-5%	0-5%	0-5%
Czech Republic	0-5%	0-5%	0-5%	0-5%
Denmark	0-5%	0-5%	5-10%	0-5%
Germany	> 20%	> 20%	0-5%	> 20%
Estonia	0-5%	0-5%	0-5%	0-5%
Ireland	0-5%	0-5%	0-5%	0-5%
Greece	0-5%	0-5%	0-5%	0-5%
Spain	0-5%	0-5%	0-5%	0-5%
France	5-10%	> 20%	0-5%	0-5%
Croatia	0-5%	0-5%	0-5%	0-5%
Italy	0-5%	5-10%	0-5%	0-5%
Cyprus	0-5%	0-5%	0-5%	0-5%
Latvia	0-5%	0-5%	0-5%	0-5%
Lithuania	0-5%	0-5%	0-5%	0-5%
Luxembourg	0-5%	0-5%	0-5%	0-5%
Hungary	0-5%	0-5%	0-5%	0-5%
Malta	0-5%	0-5%	0-5%	0-5%
Netherlands	10-20%	0-5%	> 20%	> 20%
Austria	0-5%	0-5%	0-5%	0-5%
Poland	0-5%	0-5%	0-5%	0-5%
Portugal	0-5%	0-5%	0-5%	0-5%
Romania	0-5%	0-5%	0-5%	0-5%
Slovenia	0-5%	0-5%	0-5%	0-5%
Slovakia	0-5%	0-5%	0-5%	0-5%
Finland	0-5%	0-5%	0-5%	0-5%
Sweden	0-5%	0-5%	0-5%	0-5%
United Kingdom	0-5%	5-10%	> 20%	5-10%
EU	100%	100%	100%	100%

Table 11: Share in total intra-EU-28 imports and exports of petroleum oils and natural gas, 2013, trade in value - Source: Comext, Eurostat

## Non-EU countries trade in energy products

The analysis of trade between non-EU countries shows discrepancies between imports and exports (and their respective unit values). Any conclusion therefore might be highly biased. The discrepancies are probably due to the application of confidentiality rules as well as due to non-reported trade. The net mass for energy products of Russian trade is mostly not available in the 2012 Comtrade data; similarly for USA, Canada and Thailand, the net mass for oil is also non-reported. Therefore the data must be interpreted with caution, especially for the exports of energy goods. Table 12 shows, in terms of trade value, that Russia represents 31 % of non-EU world imports of natural gas in gaseous state and 5 % of petroleum oils.

ENERGY PRODUCTS	VALUE (billion EUR)				SHARE (%)	
	Non-EU Imports	Non-EU Exports	Imports from RU	Exports to RU	Imports from RU	Exports to RU
270900: PETROLEUM OILS, CRUDE	967.3	809.1	43.7	0.0	5%	0%
27111100: NATURAL GAS, LIQUEFIED	107.6	64.0	5.8	0.0	5%	0%
27112100: NATURAL GAS IN GASEOUS STATE	47.3	114.8	14.6	0.5	31%	0%
2701: COAL	89.8	93.6	6.6	0.5	7%	0%
2702: LIGNITE	2.8	1.7	0.0	0.0	0%	3%
2703: PEAT	1.6	0.3	0.0	0.0	0%	0%
2704: COKE	3.8	3.2	0.4	0.1	10%	3%
TOTAL	1 220.1	1 086.7	71.0	1.2	6%	0%

**Table 12: Trade in energy products of non-EU28 countries, 2012, trade in value - Source: Comext,Eurostat**

More detailed tables (included in the spreadsheet) show the top non-EU importers and exporters of the two energy products of highest interest to the EU – crude petroleum oil and natural gas in gaseous state. At global level in terms of value of trade with other non-EU countries, Russia is the top exporter of natural gas in gaseous state while, for petroleum oils, it is the second biggest exporter after Saudi Arabia.

ENERGY PRODUCTS	NET MASS (million tonnes)				SHARE (%)	
	Non-EU Imports	Non-EU Exports	Imports from RU	Exports to RU	Imports from RU	Exports to RU
270900: PETROLEUM OILS, CRUDE	1 071.2	1 052.5	73.1	0.1	7%	0%
27111100: NATURAL GAS, LIQUEFIED	165.6	92.6	11.7	0.0	7%	0%
27112100: NATURAL GAS IN GASEOUS STATE	98.6	122.3	39.1	8.0	40%	7%
2701: COAL	862.9	1 181.3	60.4	26.7	7%	2%
2702: LIGNITE	56.9	41.7	0.0	2.1	0%	5%
2703: PEAT	3.7	1.7	0.0	0.0	0%	1%
2704: COKE	12.7	15.1	1.6	0.5	12%	3%

**Table 13: Trade in energy products of non-EU-28 countries, 2012, trade in net mass - Source: Comext,Eurostat**

## Data sources and availability

### Reporting Member States

This study is based on the trade in goods data of the [EU-28](#) Member States. Trade of Croatia is included even for the period prior to joining the EU, in July 2013.

### Partner country - Definitions

Extra-EU trade – The partner country is the country of last known destination for exports and the country of origin for imports. The country of last known destination is the non-EU country to which it is known, at the time of release into the customs procedure or customs approved treatment, that the goods are to be delivered.

The country of origin means the country where the goods originate; the origin of goods wholly obtained or produced in a country is attributed to that country.

Intra-EU trade - The partner Member State is the Member State of destination for exports and the Member State of consignment for imports. The Member State of consignment is the Member State from which goods were dispatched to the reporting Member State, without any halts or legal operations which are not inherent in their transport taking place in any intermediate Member State.

## Energy products

The following energy products with codes according to the Combined Nomenclature or the Harmonised System are considered in this study:

27090010: Petroleum oils from natural gas condensates  
27090090: Petroleum oils and oils obtained from bituminous minerals, crude  
27111100: Natural gas, liquefied  
27112100: Natural gas in gaseous state  
2701: Coal  
2702: Lignite  
2703: Peat  
2704: Coke

To give a full picture of the EU trade in energy products, it should be noted that Chapter 27 of the Combined Nomenclature (mineral fuels, mineral oils) contains some more products which are not examined in the present study. These products are other hydrocarbons than natural gas (propane, butane etc.). EU trade with non-EU countries is 7.4 billion EUR for imports and 1.3 billion EUR for exports (source: Comext). The share of Russia in these EU imports is 18 % and 0.05 % for exports. The main traded product is liquid propane, representing more than half of these imports.

## Data sources

[Eurostat](#) database (Comext) for the EU imports and exports. The most recent data available are for the reference year 2013. They correspond to the Community concept and definitions as defined by the EU legislation. NB: Data collected on the basis of [Regulation 1099/2008](#) on energy statistics are not used in this study.

UNSD database (Comtrade) for non-EU countries' data. The most recent data available are for the reference year 2012. They correspond to the national concepts and definitions which follow in general the international standards set up by the UN manual on International Merchandise Trade Statistics.

## Units of measure

Trade values are expressed in billions of euros. They correspond to the statistical value, i.e. to the amount which would be invoiced in case of sale or purchase at the national border of the reporting country. It is called a [FOB](#) value (free on board) for exports and a [CIF](#) value (cost, insurance, freight) for imports.

Quantities are expressed in millions of tonnes and correspond to the net mass, i.e. to the mass without any packaging. Unit values are the ratio of value and net mass (value/net mass). NB: Values of 0 or 0.0 mean very small values.

## Data limitations

A bias in the geographical allocation of extra-EU flows - Extra-EU imports and exports are reported by the Member State where the customs declaration is lodged, usually the place where the goods cross the EU external

frontier (here referred to as the exit/entry Member State). This is not necessarily the Member State of actual import or export. The geographical allocation of an extra-EU flow will be biased as soon as the entry/exit Member State is not the actual importing/exporting Member State. In such a case, the extra-EU trade will be allocated to the entry/exit Member State and the actual importing/exporting Member State will report only intra-EU flows with the exit/entry Member State. This issue particularly impacts on EU imports for Member States having important ports for transshipment of goods like Antwerp in Belgium and Rotterdam in the Netherlands.

Missing EU data – The analysis presented is based mostly on collected data (confidential and non-confidential). Where necessary estimates for missing indicators are compiled on the basis of other available indicators and EU averages for similar trade.

Lack of accuracy of non-EU countries' data – The total exports calculated from Comtrade data are far from being equal to the total imports. In addition, Russian data are incomplete. Consequently, it was not possible to examine the EU trade from the mirror point of view of Russian statistics.

Trade and consumption – This study focuses on imports and exports of energy products and does not consider EU domestic energy production. Consequently the share of extra-EU imports from different trading partners should not be interpreted as a measure of dependency on particular trade partners. Part of the energy products consumed in the EU is produced in the EU. According to energy statistics, in 2012, 34 % of natural gas consumption was supplied from a source within the EU. Similarly about 56% of coal (all coals) and about 14 % of oil (crude oil and all petroleum products) consumed in the EU was supplied from a source within the EU.

## Context

Having a secure supply of energy is crucial for the well-being of European citizens and the economy. The EU works to ensure that energy supplies are uninterrupted and energy prices remain stable.

In response to the political crisis in Ukraine and the overall importance of a stable and abundant supply of energy for the EU's citizens and economy, the European Commission has released an EU energy security strategy on 28 May 2014.

This strategy is based on an in-depth study of Member States' energy dependence and addresses medium and long-term security of supply challenges.

## Further Eurostat information

### Database

- [International trade](#)

### Dedicated section

- [International trade](#)

### Methodology / Metadata

- [International trade ESMS metadata file](#)

## Other information

**International trade in goods – Legal background** Trade with non-EU countries (hereafter referred to as extra-EU trade) – Statistics relating to the trading of goods by the Community and its Member States with non-member countries are based on

- [Regulation 1099/2008](#) of 22 October 2008 on energy statistics
- [Regulation 471/2009](#) of 6 May 2009 on Community statistics relating to external trade with non-member countries
- [Regulation 92/2010](#) of 2 February 2010 implementing Regulation (EC) No 471/2009, as regards data exchange between customs authorities and national statistical authorities, compilation of statistics and quality assessment
- [Regulation 113/2010](#) of 9 February 2010 implementing Regulation (EC) No 471/2009, as regards trade coverage, definition of the data, compilation of statistics on trade by business characteristics and by invoicing currency, and specific goods or movements.

## External links

- [European Energy Security Strategy](#)

## Notes

This article is available on Statistics Explained at: [http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php?title=Trade\\_in\\_energy\\_products](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=Trade_in_energy_products)

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